

PUBLICATIONS

1. Acoustic Nonlinearity in Fluorinert FC-43
C. Pantea, D.N. Sinha, C.F. Osterhoudt, P.C. Mombourquette
Submitted to POMA, 2009.
2. Elastic constants of osmium between 5 and 300 K
C. Pantea, I. Stroe, H. Ledbetter, J.B. Betts, Y. Zhao, L.L. Daemen, H. Cynn, A. Migliori
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3. Bulk modulus of osmium, 4-300 K
C. Pantea, I. Mihut, H. Ledbetter, J.B. Betts, Y. Zhao, L.L. Daemen, H. Cynn, A. Migliori
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4. Diamond's elastic stiffnesses from 322 K to 10 K
A. Migliori, H. Ledbetter, R.G. Leisure, **C. Pantea**, J.B. Betts
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5. Structure of diamond-silicon carbide nanocomposites as a function of sintering temperature at 8 GPa
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6. Direct measurement of spin correlation using magnetostriction
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8. High-Temperature Phase Transitions in CsH_2PO_4 under Ambient and High-Pressure Conditions: A Synchrotron X-ray Diffraction Study
C.E. Botez, J.D. Hermosillo, J. Zhang, J. Qian, Y. Zhao, J. Majzlan, R.R. Chianelli, **C. Pantea**
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9. Alpha-plutonium's polycrystalline elastic constants over its full temperature range
A. Migliori, **C. Pantea**, H. Ledbetter, J. B. Betts , J. E. Mitchell, M. Ramos, F. Freibert, D. Dooley, S. Harrington, C. Mielke
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10. Temperature and time-dependence of the elastic moduli of Pu and Pu-Ga alloys
A. Migliori, I. Mihut, J.B. Betts, M. Ramos, C. Mielke, **C. Pantea**, D. Miller
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11. Investigation of relaxation of nanodiamond surface in real and reciprocal spaces
B. Palosz, **C. Pantea**, E. Grzanka, S. Stelmakh, Th. Proffen, T.W. Zerda, W. Palosz
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12. Microstructure of diamond-SiC nanocomposites determined by X-ray line profile analysis
J. Gubicza, T. Ungar, Y. Wang, G.A. Voronin, **C. Pantea**, T.W. Zerda
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13. Pressure-induced elastic softening of monocrystalline zirconium tungstate at 300 K

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15. Nano-Diamond compressibility at pressures up to 85 GPa
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16. Evidence for a Structural Transition to a Superprototypic CsH_2PO_4 Phase Under High Pressure
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17. Digital ultrasonic pulse-echo overlap system and algorithm for unambiguous determination of pulse transit time
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28. Graphitization of diamond of different sizes at high pressure-high temperature
J. Qian, **C. Pantea**, J. Huang, T.W. Zerda, Y. Zhao
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29. High pressure effect on dislocation density in nano-size diamond crystals
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PATENTS

- Device and Method for Generating a Beam of Acoustic Energy from a Borehole and Applications Thereof
submitted 2008
- Wide bandwidth, low frequency, collimated, parametric acoustic beam source for imaging
submitted 2009

PRESENTATIONS

- Nonlinear Acoustical Beam Formation and Beam Profiles in Fluids
C. Pantea and D.N. Sinha
 155th Meeting of the Acoustical Society of America, San Antonio, TX, 26-30 Oct 2009
- Acoustic Nonlinearity in Fluorinert FC-43
C. Pantea, D.N. Sinha, C.F. Osterhoudt, P.C. Mombourquette
 154th Meeting of the Acoustical Society of America, Portland, OR, 18-22 May 2009
- Acoustic nonlinear beam formation and imaging
C. Pantea
 Texas Christian University, Department of Physics and Astronomy, Fort Worth, TX, January 23, 2009
- Negative-thermal-expansion ZrW_2O_8 . Elasticity and pressure.
C. Pantea, A. Migliori, P. B. Littlewood, Y. Zhao, H. Ledbetter, J. C. Lashley, T. Kimura, J. Van Duijn, and G. R. Kowach
 APS March Meeting 2007, March 5-9, Denver, CO.

- Osmium's full elastic tensor between 5K and 300K

C. Pantea

152nd Meeting (4th joint meeting of the Acoustical Society of America and the Acoustical Society of Japan), Honolulu, Hawaii, 28 November-2 December 2006

- Pressure-induced elastic softening of monocrystalline zirconium tungstate at 300K

C. Pantea

MSCookies and Tea, LANL, August 2nd, 2006

- Nano-Diamond compressibility at pressures up to 85 GPa

C. Pantea, J. Zhang, J. Qian, Y. Zhao, A. Migliori, E. Grzanka, B. Palosz, Y. Wang, T.W. Zerda, H. Liu, Y. Ding, P.W. Stephens and C.E. Botez
NSTI Nanotech 2006, May 7-11, Boston, MA.

- Digital ultrasonic pulse-echo overlap system and algorithm for unambiguous determination of pulse transit time

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APS March Meeting 2006, March 13-17, Baltimore, MD.

- Unusual compressibility in the negative-thermal-expansion material ZrW₂O₈

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- Nano-Diamond compressibility at pressures up to 85 GPa

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- Phase-coherent pulse-echo ultrasound in a SiC anvil pressure cell

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- Diamond Composites and control of graphitization

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- Structure Study of Diamond-SiC Composites Obtained Under High Pressure-High Temperature Conditions

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APS March Meeting 2003, March 3-7, Austin, TX.

- Diamond-silicon reaction under high pressure - high temperature conditions

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- β-SiC formation on diamond crystals under high pressure-high temperature conditions

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- X-ray diffraction study of diamond-graphite phase transition at high pressures and temperatures

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